

MEDICAL EXAMINER.

DEVOTED TO MEDICINE, SURGERY, AND THE COLLATERAL SCIENCES.

No. 50.] PHILADELPHIA, SATURDAY, DECEMBER 14, 1839. [Vol. II.

FOREIGN HOSPITAL REPORTS.

[By W. P. JOHNSTON, M. D., of Georgia.]

HÔTEL DIEU—SERVICE OF M. LOUIS.

Case of Cancer of the Stomach—Absence of lancinating pains—Tumour felt in the region of the small curvature—Great distention, with evident contraction of the stomach, perceptible to the eye—Death—At the autopsy, scirrhous of the pylorus and small curvature—General hypertrophy and dilatation of the stomach—Mucous membrane generally healthy, &c. &c.—Remarks.

M., sixty years of age, a soldier during seven years, since a merchant of hardware in the streets of Paris; he is of ordinary height, moderately thin, and possesses sufficient intelligence; his habits are rather intemperate; his diet has generally been sufficiently good and substantial; health ordinarily very good; says he had a fever at the age of seventeen, which lasted one or two months. In the month of August, 1838, this patient commenced to vomit occasionally. Previous to this it does not appear that there had been any abnormal symptom in the digestive apparatus; his appetite had been good; he had never experienced eructation of gas from the stomach, nor any unpleasant sensation in the region of this organ; digestion had appeared to be perfect. The vomitings, once commenced, became gradually more and more frequent; first, at intervals of several days, and finally, of late, as often as several times a day; sometimes they occurred immediately after a repast, but more generally at the end of several hours. The matter ejected was of a sour taste, and in it the patient often remarked substances which he had eaten four or five days before; the vomitings were never of a black or brownish colour. The acid eructations commenced about the same time with the vomitings, and soon became of frequent occurrence; he has not experienced any pain in the stomach, nor even a sensation of weight; the appetite has gradually diminished; and the emaciation, in the opinion of the patient, has become considerable, though he was never remarkable for embonpoint. The stools became less frequent, and finally rare,—but one during the last eighteen days.

Up to the present time the patient has continued his fatiguing trade, which has obliged him to walk more or less from morning to night; twice, however, he has been obliged to enter the hospital, and to remain a few weeks; while there the vomitings became rather less frequent.

Actual state, the 26th February, 1839, two days after entrance.—The character of the patient seems rather gay; intelligence and senses untouched; expression natural; face moderately co-

loured; emaciation to the second degree; tongue moist, whitish posteriorly; appetite variable; thirst moderate; sour eructations; vomiting yesterday evening composed, in part, of prunes, which the patient eat twenty-four hours before; no pain nor abnormal sensation at the stomach; two stools after injection given yesterday; abdomen not developed; cicatrices of cauteries in the epigastric region; the left flank is less depressed than the right; considerable depression below the xyphoid cartilage, a little above the umbilicus; slight elevation. On palpating here we discover a tumour, irregular in surface, which appears to extend in a line running from left to right, to the same distance on each side of the median line of the body, but its limits cannot be well defined; pressure occasions little or no pain; percussion and auscultation of the heart and lungs reveal the normal physical signs; pulse sixty-two, small, regular; temperature of the skin natural. (R. One bottle of water of Vichy; soup twice; injection.)

Feb. 29th.—Vomiting every day since last date,—generally in the evening, two or three hours after dinner; the matter ejected yesterday resembles half-digested bread; there is no appearance of the prunes eaten three hours before. The abdomen exhibits a development extending from the umbilicus to the distance of three inches above, and of an equal extent in breadth; the percussion here gives a clear sound, much more so than elsewhere; the tumour noticed on the 26th cannot be felt; no change in the other symptoms. (R. Water of Vichy; gum potion; soup twice.)

March 4th.—The stomach is much distended by gas; it forms from its development a tumour in the epigastric region about three inches in extent, and of an oval shape, but varying every instant in size and form, owing to the contractions of the stomach, which are constant, and which occasion a kind of undulating motion, perceptible to the eye at a considerable distance from the bed. Vomiting daily, usually in the evening; appetite at times; pulse sixty. (R. Water of Vichy; soup; chicken.)

March 11th.—The development and contractions of the stomach have been remarked daily; the distention now exists to a very slight degree, and it is easy to satisfy one's self of the existence of a tumour; matter vomited yesterday of a grayish colour. (R. Two bottles of water of Vichy; gum potion, &c.)

18th.—No sensible change since last date, except that the patient is becoming more feeble: the stomach, when distended, appears to occupy a larger space than usual. The matter vomited yesterday is of the consistence of mucus, adhering in part to the bottom of the vessel, and

presents, for the first time, a brownish colour. The face exhibits an expression of disgust, and there is nausea; tongue moist, nearly natural; stools not more than one daily; pulse ninety-six; skin rather warmer than natural.

20th.—Vomiting of a bitter and reddish matter; the epigastrium being more depressed than usual, the tumour can be felt; it appears to M. Louis to be situated in the small curvature of the stomach; emaciation progressive. (R. Same.)

21st.—Abdomen contracted, slight projection near the umbilicus; sensation of tumour; no vomiting since yesterday; no diarrhoea; pulse ninety-six, very small, difficult to count; sounds of heart not easily heard; extremities still warm.

22d.—Vomiting two or three times of a brownish and pultaceous substance; pulse ninety-six, very feeble; skin of natural temperature. (Same prescription.)

23d.—Brownish ejections from the stomach; gradual sinking; death between 8 and 9, P. M. Lungs not examined during the last few days, in consequence of the great feebleness of the patient; there had been no cough.

Autopsy thirty-six hours after death.—Atmosphere dry; last degree of marasmus; no stiffness of the extremities; walls of the abdomen a little livid. *Brain*,—moderate degree of infiltration under the arachnoid; the membranes can be easily removed without injuring the substance of the brain; they present their normal appearance. The cortical and medullary portions present nothing remarkable; a teaspoonful of limpid fluid in each lateral ventricle. *Chest*—*Heart*,—two or three spoonful of a citron-coloured fluid in the pericardium; *heart*, three inches at its base, three inches and two lines from base to apex; the right ventricle contains a soft, black coagulum; none in left; the valves present their usual colour and suppleness; lining membrane of the several cavities exhibits nothing remarkable. The aorta presents near the semilunar valves some small white spots, situated under the lining membrane. *Lungs*.—No adhesions; the posterior and inferior portion of each lung is brownish red, slightly granulated, and a little friable. Bronchial tubes apparently healthy. *Abdomen*.—*Stomach* very much distended and enlarged; pushes up the left lung, and is partly concealed by the border of the liver; it contains a considerable quantity of a brownish liquid, as well as gas. The œsophagus is much dilated between the seventh vertebra and the cardiac orifice; incising it, we find it measuring two and a half inches near this latter point,—in thickness it measures from one to one and a half lines; this is principally owing to the great hypertrophy of the muscular coat; the internal surface is slightly grayish, and presents near the cardiac orifice of the stomach several irregular whitish points, (plaques,) which seem to be the remains of the epithelium. *Stomach exteriorly*.—On its anterior surface we remark an injection of some of the larger venous trunks. On the posterior surface, and near the pylorus, is a vegetation, (plaque,) more or less circular, five lines in diameter, elevated above the surrounding

parts, of an irregular, mammelonnated surface, and of a yellowish colour; this point is excessively hard, grating under the knife; around is a slight depression, with lines or radii running from it, resembling certain cicatrices. *Interiorly*, we find a portion of the small curvature near the pylorus occupied by a tumour two inches and three lines long, and one inch and a half in height; its greatest thickness, taken half an inch from the pylorus, is ten lines. On the posterior part, and on the side near the œsophagus, the tumour stops abruptly. On the anterior surface, on the contrary, it diminishes gradually, confounding itself insensibly with the general increased thickness of the coats of the stomach. Towards the pylorus the tumour also ceases abruptly; about one-third of this orifice is invaded by it, and this has occasioned so great a diminution in its diameter that it was impossible to introduce the extremity of the little finger before we had opened it. Near the pylorus is a depression in extent about an inch square; greatest depth one line; smooth; of a bluish colour. Here the mucous membrane is entirely wanting, and the cellular tissue forms the base of the ulcer, except near the centre, where the muscular tissue is exposed. When we cut into and carefully examine this tumour, we find that it is composed, 1st, of the submucous cellular tissue very much hypertrophied, offering from two to three lines in thickness near the pyloric valve, of a whitish colour, indurated, grating under the scalpel, in other words, converted into scirrhus matter; 2d, of the muscular coat also greatly hypertrophied, four lines in certain points, and easily recognizable by its transparent and rosy appearance. The cellular tissue between the muscular and peritoneal coats does not appear to have undergone any alteration, nor to be thicker than usual. In certain points of the tumour, viz., where it offers its greatest thickness, it is impossible to recognize the different tissues of the stomach. The walls of the stomach generally are much thicker than usual, viz. three-quarters of an inch in the anterior surface, and still more so near the large curvature; to the touch the stomach is less flexible than usual. The mucous membrane is of a grayish colour, and appears to have its normal thickness and consistence, except near the ulceration noticed, where it is thickened and softened in the extent of about four lines; it presents an injection of some of the larger trunks on both the anterior and posterior surface. The *duodenum* and the small intestines contain a brownish liquid, similar to that found in the stomach, but less abundant. The mucous membrane offers its usual physical characters. The large intestine is filled with firm, fecal matter; the mucous membrane can be raised in strips of nearly an inch long; thickness normal. *Mesenteric glands*.—Some are of the size of a French bean, (haricot,) of a grayish or rosy colour internally; there are other glands much smaller, whitish internally, and indurated, resembling scirrhus matter. *Liver*.—Usual size, reddish colour, good consistence; gall bladder distended by a thick and dark-co-

loured bile; spleen and kidneys offer nothing remarkable.

Remarks.—Much difference of opinion prevails as to the cause of cancer, especially of the stomach. M. Andral classifies the disease among the chronic inflammations of the stomach, and believes it to be constantly preceded by a chronic gastritis, even in those cases where, at the autopsy, the mucous membrane has been found healthy. Broussais, Bouillaud, and others, entertain a similar view, while Louis from observation and analogy, has been led to deny this relation of cause and effect. Gastritis, according to this latter observer, is very rare, since during five years while at "La Pitié," he saw but five cases. Again, he has always found inflammation of the stomach less marked in the region of the pylorus, which is, on the contrary, the chosen seat for cancer, since he has found it here as often as in all the other parts of the stomach put together. 3dly. M. L. has never found cicatrices except in the posterior face of the stomach, the point where cancer is the most rare. 4thly. Inflammation of the lungs is very frequent, while cancer of these organs is very rare; inflammation of the liver, on the contrary, is rare in this climate, while cancer of this organ is not unfrequently met with. It is probable that both parties are too exclusive on this point. Admit with the majority of authors, that there exists among certain individuals, a predisposition to this disease, or a cancerous diathesis, and we can then easily conceive how an inflammation of the stomach may become the accidental cause of the development of scirrhus in the stomach, in the same manner as a blow upon the breast appears, in some instances, to have been the cause of scirrhus of the mammary gland; or as some local irritation, like that occasioned by continual smoking of a pipe, becomes, evidently, in certain cases, the cause of the development of mucous tubercles near the commissures of the lips in persons whose constitutions are labouring under a syphilitic influence.

In the case which we have detailed above, it appears probable that the disease remained completely latent for a time, and that it was not until the pyloric orifice was so far diminished in size as to interfere with the healthy functions of the stomach, that the vomitings, the first appreciable symptom, commenced.

In the earlier stages of scirrhus of the stomach, much difficulty is experienced in making a correct diagnosis, in consequence of the great analogy of its symptoms with those of chronic gastritis. M. Andral, in fact, declares that except in those cases where a tumour can be felt, there is no certain sign to distinguish the one affection from the other. The acid eructations, the vomiting of a brownish matter like coffee grounds, the lancinating pains, &c., which are regarded as belonging more especially to cancer, have all been seen by him in cases where the autopsy has revealed nothing but a chronic gastritis, while, on the other hand, one or more of these symptoms are often wanting in genuine cancer—as the above

case presents an example of, with regard to the absence of lancinating and other pains. When the disease becomes a little more advanced, especially if it occupies one of the orifices, we have soon a series of phenomena, which enable us in the majority of cases, to diagnosticate not only the disease, but its particular seat. The discovery of the tumour is still, undoubtedly, the most important sign of this disease, as M. Andral has remarked, and a careful palpation should always be practised. If a tumour be once felt, there exists no difficulty in deciding to what organ it belongs. If it be the liver or the spleen, it is generally easy to recognise the sharp and regularly defined edge of these organs: if it be in the integuments, it will not change its position, when the patient is placed upon the side: if it be in the stomach, by pressing on it, and making the patient take a full breath, it will be found to rise and fall with the diaphragm, and if the patient places himself upon the side, the tumour will be found to have changed position also. Making the patient change his position is very important, for it sometimes happens, when the disease is seated near the pylorus, that the tumour cannot be felt when the patient lies on his back, but if we place him on the left side, the tumour is thrown more forward and we can then detect it.

The dilatation and distention of the stomach by gas, which accompany scirrhus with contraction of the pylorus, are sometimes sufficient to enable us to judge of the form and size of this organ through the walls of the abdomen. It is rare, however, that we have an occasion of seeing the contractions so satisfactorily as in the above case.

LA CHARITÉ—SERVICE OF M. VELPEAU.

Case of Varix of the Lower Extremities—Operation—Death.

Peter Galopan, aged 34 years, a white leather dresser by profession, possessed of a good constitution, but of a nervous and irritable temperament, entered the hospital "La Charité," the 1st March, 1839, Salle Ste. Vierge, service of M. Velpeau. The profession of this man has obliged him to remain standing almost constantly; no other cause can be assigned for the existing disease. The enlargement of the veins appears to have commenced in the right leg, but for several years since they have both been affected; the varicose tumours have progressively augmented in size, although the patient has made habitual use of a compressive bandage.

Actual state.—The left leg offers a series of tumours, soft and elastic, with a bluish colour of the integuments in their most prominent points. These extend on the internal surface of the leg, from the upper part of the thigh, as far as the internal malleolus, marking out the passage of the internal saphena vein. Varicose veins less voluminous are seen upon the upper surface of the foot and the external part of the leg. On the internal side, and near the instep, is a small ulceration which appears to be undergoing the process of cicatrization; it is surrounded by reddish coloured cicatrices evidently of new formation. The

integuments offer a considerable number of vascular arborisations of a violet colour, formed by the dilated capillary vessels.

On the right side, the varicose veins are fewer in number, and their volume is much less considerable. The patient says that he has remarked at times, in the evening, a little swelling about the ankles.

April 4th.—Nothing new has occurred in the state of the patient. His general health continues perfectly good. Mr. Velpeau passed 12 pins under the varicose veins of the left leg, and passing a strong ligature under each pin, tied them as tightly as possible, so as to stop entirely the circulation in that part of the integuments which was thus included. This operation produced an acute pain of short duration.

During the day, the patient experienced some slight pain. In the evening we remarked the commencement of phlyctena accompanied by a slight redness upon several of the points which were strangulated.

April 5th.—No general reaction: the pain from the ligatures has almost entirely ceased.

From the 6th to the 10th. The skin acquires a brownish colour in the points strangulated by the ligatures, and becomes insensible; around these is a circular redness, perfectly circumscribed; the process of elimination between the dead and the living portion seems to have commenced.

The varicose veins have diminished considerably in size, and the circulation appears to be interrupted; however, there are one or two tumours in which the blood appears to have gained access by the collateral branches.

M. Velpeau applied two new ligatures in the same manner as before. Five or six days after the operation, the ligatures were cut and the pins withdrawn; one of those near the knee, had become bent during the application of the ligature, and its extraction was both difficult and painful.

April 16th.—Last night the patient was seized with intermitting chills, which lasted until near morning. He vomited several times a matter of greenish colour. This morning, expression of exhaustion; the nausea and vomiting continue; the tongue is furred; mouth clammy, with a bitter taste. A little headach: and at times, vertigo; great heat of the skin; pulse small and frequent. The leg is swollen; red lines are seen over its surface; the inguinal glands are swollen and painful to the touch. This "angioleucite" appears to have been occasioned by the ulcerations which succeeded the sloughing of the strangulated portions of the integuments; the red lines which appear to mark out the course of the lymphatic vessels, seem more numerous and more marked in the neighbourhood of the point where the removal of the pin was found so difficult, and which has not ceased to be more painful than the others.—R. Venesection.

April 17th.—Delirium during the night: this morning the expression of the patient is still more unfavourable; a little stupor; prostration; general trembling; headach; the patient sees flashes of light; noise in the ears; contusive pain in the

lumbar region and in the articulations. Tongue dry and incruusted; intense thirst; vomiting has ceased; the epigastrium is slightly painful on pressure; sensation of a liquid in the intestines; three liquid stools since yesterday. Skin hot; pulse small and frequent.

April 18th.—Delirium during the whole night, and continuing still. The symptoms observed yesterday, still exist, but much more marked; profound stupor; trembling of the extremities; subsultus tendinum; the face is of a violet colour; lips swollen and blackish; tongue considerably swollen, dry and livid; skin hot; pulse thread-like, and very frequent. Bluish spots exist upon several points of the body; they are more marked on the internal surface of the arms: upon the back of the right hand is a small fluctuating tumour.

April 19.—Delirium during the whole night; the stupor is extreme; the patient no longer answers the questions addressed to him. Face livid; lips swollen; pulse very frequent; scarcely sensible. The livid spots noticed yesterday over the body have augmented in intensity and in extent; the tumefaction on the back of the right hand is not so great, but it is increased in extent and offers a bluish colour; considerable swelling of the left leg; the extremities commence to be cold.

Death, at 9 A. M.

Autopsy.—Twenty-four hours after death. Atmosphere dry.

Lividity of the teguments; bluish lines mark the course of the subcutaneous veins; abdomen of a greenish colour.

Thorax.—The right lung is attached to the costal pleura throughout, by old adhesions. At the summit of the left lung exists a cretaceous tubercle. Passive engorgement of the two lungs in their posterior portion, from which a pretty considerable quantity of bloody serum can be pressed out. Nothing else remarkable.

The heart contains a quantity of blood, partly fluid, partly forming a clot, of but little consistence. A small, yellowish fibrinous coagulum in the right ventricle.

Abdomen.—Stomach and intestines distended by gas. A few inches above the ilio-cæcal valve a patch (plaque) of Peyer's glands, red, swollen, and slightly ulcerated; the follicles are prominent.

Through the incisions made in the points of the integuments, which presented a bluish colour, we remark an effusion of blood, varying in quantity, in the subcutaneous cellular tissue; the greater part of this blood is still fluid, and escapes through the incisions, but there exists some clots of slight consistence. The effusion of blood, which exists on the abdomen, legs, and especially on the inner surface of the arms, penetrates in the intervals of the muscles and fills the sheath of the vessels. The tumefaction observed on the back of the hand is owing also to an exhalation of blood. The inferior vena cava is distended by black and fluid blood. In the saphena veins is also seen very fluid blood, with some few clots

but little consistent. Near the superior part of the left thigh the saphena vein is surrounded by a mass of enlarged lymphatic ganglions: upon incising these, we remark a notable injection, which diminishes from the circumference to the centre. At this point, that is, near the junction of the saphena with the crural vein, we find the vein (saphena) obliterated, in the extent of about eighteen lines, by a coagulum adhering to its internal membrane, which is red, and presents an irregular surface. Corresponding to the pin placed nearest the lowest extremity of the thigh exists another coagulum, also adhering, about eight or nine lines long, of a bright red colour; at this point the vein is contracted in its calibre. Corresponding to the other ligatures there is neither coagulum nor adherence of the sides of the vein, but if we place the vein between the eye and the light, the points where the pins passed are marked by a transparent line, and it appears that there is evidently in these points a destruction of part of the middle tunic of the vein, the internal and outer coat remaining untouched. The passage of the pin through the cellular tissue is indicated by a canal, red, and lined by a false membrane. The saphena vein presents a notable thickening of its coats; on the inner surface, which is of a greenish white colour, we remark an areolar structure, which appears owing to the projection of the fibres of the middle coat; this is hypertrophied, and evidently formed of fibres, of which the greater part run in a longitudinal direction, and present, in certain points, a muscular aspect; on the internal surface we observe, also, certain thread-like prolongations, which are attached only at their two extremities; these, in some points, bear a strong resemblance to the columnæ carneæ of the right ventricle of the heart; corresponding to the points where the varicose tumours existed, before the operation, these bridles are placed, the one above the other, so as to give an erectile appearance to the internal surface of the vein. This latter disposition is especially remarkable in the portion of the vein corresponding to the inferior third of the thigh; here the vein appears to be divided into secondary cavities; here also we remark a lateral dilatation of the vein, the walls of which appear to be formed by the external and internal coats alone, while the middle appears to have entirely disappeared. In the vein of the opposite side we remark the same hypertrophy of the different coats, but to a less degree.

Remarks.—We pass over the peculiar points of interest which the above case presents, in a pathological point of view; we shall simply say a few words upon M. Velpeau's method of operating for varicose veins. This method is undoubtedly far more simple, and less dangerous than the ancient methods, especially that of cutting the veins; but the above case proves that it may sometimes be fatal. In his lecture on this subject, some time since, M. V. declared that up to that period, of upwards of one hundred patients, upon whom he had practised this method, he had never lost but this one case.

There are three objections which we think may reasonably be urged to this operation.

1st. The operation is rarely necessarily demanded, varicose veins being seldom more than an inconvenience.

2d. The operation does not fulfil the object proposed by the surgeon. The anastomosis between the deep seated and superficial veins of the lower extremity is so numerous that it becomes a difficult matter to obliterate a dilated vein, and when effected, even partially, others become dilated in their turn. We have often remarked after this operation only a moderate and partial diminution in the volume of the vein. A few days since we examined a patient, a considerable time after the operation; the internal saphena vein of the left leg was much dilated between the points where the ligatures had been applied, as indicated by the cicatrices. At times this method of treatment fails entirely. An example of this we had an occasion of seeing a few months since, in a medical student operated upon for varicocoele, in the wards of M. Velpeau; he had been discharged as cured, but in three or four weeks returned again; on examination the veins were found more numerous, and more dilated than before the operation.

3d. Considering the above objections, we do not think that the imperfect cure which follows the operation a sufficient compensation for the danger to be incurred. The mortality, numerically speaking, has been very small, but in proportion to the utility gained, perhaps, much greater. It must be recollected that this operation is more generally performed in hospital practice, and here the danger must always be greater and the success more uncertain, in consequence of the frequent prevalence of an epidemic erysipelas. In private practice, it is true, this objection would not be so tenable.

A few days since, M. Breschet lost a patient, from phlebitis, after the application of his instrument for varicocoele; this is the first serious accident that M. B. has remarked after his operation. It is very important to note here, that this patient, a young Englishman, was operated upon by Sir Astley Cooper, and his case has been published in one of the English Medical Journals as a radical cure; the disease, however, returned.

Within a few days, (Oct. 15) M. Velpeau has lost a second patient, after the operation for varix. He was attacked by erysipelas of the thigh and died with symptoms of purulent absorption. At the autopsy, pus was found in the veins, and in the cavity of the pleura. Another patient operated upon for varicocoele, about the same period, was seized with erysipelas of the scrotum, accompanied by chills, high fever, and alteration of the natural colour of the skin, which became of a yellowish tinge. His condition has been extremely alarming, and the issue is still very doubtful. It must be remarked, however, that in these two patients, and in others operated upon recently, M. Velpeau has employed the method of M. Gagnebé, which consists in passing a

ligature around the vein, under the integuments, by a simple puncture of the skin.

HÔTEL DIEU—SERVICE OF M. LOUIS.

Case of Amaurosis, consequent on Vinous Excess.—Cure.

(Abridged from a Case read before the Société Médicale d'Observation.)

S—, unmarried; 24 years of age; a mason by profession; entered Hôtel Dieu, service of M. Louis, the 4th February, 1839. On the 13th of January last he left the hospital, having been confined there several weeks by an illness, probably, from the account he gives, a typhoid fever; during the fifteen days which have preceded his present disease he recovered his embonpoint and his strength, and resumed his trade. The eyesight of this patient has always been very good, he is not a myope, never had any disease of the eyes; but about a year since, after a fall in which he struck his head, his sight was troubled, but this passed off in a day without treatment. While a boy he was subject for several years to a pain in the head, of which he was sometimes promptly relieved by a spontaneous epistaxis, which frequently occurred at this period. For the last four or five years he has often experienced vertigo to a slight degree. On Sunday, the 27th January, while still enjoying perfect health, the patient drank three or four bottles of wine, without becoming intoxicated. The next day he was seized with a pain in the head, and with diarrhoea, which have persisted ever since. The third day the sight became troubled. There was swelling of the face, and nausea. Complete loss of appetite since the commencement of the prodromes. The introduction of a small quantity of aliment, daily, produced eructations and enlargement of the abdomen. No fever thus far; no appreciable alteration in the other functions. The disturbance in the vision continued increasing, so that on the day of his entrance the patient could not walk without being guided, nor could he distinguish any of his friends. Thus far, no treatment.

After the examination made as to other possible causes of the disease, it appears that the patient has received no blow upon the head, nor been exposed to brilliant light; he has committed no venereal excesses, &c. We may remark, that thus far the occasional alcoholic excesses of S. have never produced any alteration in the organ of vision.

February 5th.—Actual state. Hair, light colour; eyes, gray. No emaciation. Face swollen, coloured, without pain, a sensation of tension only. Eyelids natural. No injection of the eyes; pupils, one to two lines in diameter, regular, not contracting even at the approach of a candle, nothing remarkable behind them. At the distance of about a foot the patient distinguishes nothing; at times he remarks sparks, black spots, &c. floating before his eyes; no pain, nor even sensibility to the light of a candle placed at the distance of four inches. Pain in the head general; no vertigo; sense of hearing unaffected. Tongue a little whitish, moist; moderate thirst; no appetite. Abdomen developed, not painful; one

stool. Auscultation and percussion denote nothing remarkable in the lungs nor in the heart. Pulse seventy-eight, regular; heat of the skin natural.

R.—Rice water with gum syrup, acidulated with lemon juice, gum potion with hydrated chloride of morphia, gr. j.—strict diet.

Feb. 6.—The face appears rather less swollen; no alteration in the pupils; blindness nearly complete, more so than yesterday.

R.—Injection; bleeding at the foot; suppress the potion.

Feb. 7.—Yesterday, before bleeding, the patient was seized with a violent pain in the head, accompanied by nausea. An hour after the bleeding, head was relieved, and the vision a little better. To-day the pupils contract nearly as much as in their natural healthy state, and the sight is sensibly improved. At the distance of two feet, the patient now distinguishes the light of a candle. Slight pain, like sand in the eyes; no injection of the conjunctiva; cephalalgia frontal; no nausea since the bleeding.

R.—Fifteen leeches behind each ear; one bottle of Seidlitz water.

8th.—The patient distinguishes objects at a greater distance; he sees as if through a fog. The contraction of the pupils more perfect; they have not more than the diameter of half a line at the approach of a candle. The sparks and black spots, seen by the patient constantly, since entrance, are now much less numerous. The face is reduced to its natural size. One stool; abdomen presents its natural volume. Pulse 60.

R.—Discontinue Seidlitz waters; two bowls of soup.

9th.—Headach has ceased; sight only troubled when the patient regards steadily an object, and then only he observes spots before his eyes.

R.—Sol. sir. gum. The eighth of a portion.

11th.—Sight as perfect as in health; he can regard, fixedly an object without remarking any spots. Feels quite well.

R.—The half a portion.

The patient was discharged the next day, perfectly cured.

Remarks.—The example of amaurosis, which we have here given, seems to belong to that division which M. Sichel calls "amblyopie congestive cérébrale," or partial amaurosis, arising from more or less congestion of the brain, and not from any lesion of the retina. The previous history of the patient, which renders it not impossible that he was accustomed to an occasional congestion of the brain, though no doubt very slight; and especially the happy effect produced by blood-letting, seem to strengthen this idea. Alcoholic liquors, though often cited by authors as a cause of amaurosis, are so, we are induced to think, rather rarely; at least, we recollect of seeing but one other patient in whom the relation between cause and effect was sufficiently well marked to be admitted without a doubt. The congestive amblyopia, in the acute form, is decidedly the most manageable form of this disease, whatever may have been the exciting cause; a well-regu-

lated antiphlogistic treatment is that which we must chiefly depend upon, and this will sometimes effect a cure in a very short time, as we have an example in the above case.

There is another form of congestive amaurosis, more chronic, and much more frequent; this is generally met with in women about the critical age, or in both sexes, from the suppression of an accustomed hæmorrhoidal flux. It is in this form that Mr. Sichel often produces a favourable modification in the symptoms by restoring the suppressed discharges, and by antiphlogistics, sometimes long continued, in order to remove all tendency to congestion before attempting the application of local stimulants, of strychnine, &c., which afterwards are required. These latter remedies are often too soon resorted to, in consequence of persons being too much led astray by the name of amaurosis, with which there is so strong a tendency to connect the idea of a torpidity of the retina, or of a lesion beyond cure.

We cannot but mention, in passing a third form of this disease, which merits great attention. It is that which is produced from the incessant use of the eyes in the examination of minute objects. We have frequently had occasion to see this, at the consultations of M. Sichel, among seamstresses. Here the pupils retain their contractibility, but the power of vision becomes enfeebled, the patient sees sparks, spots, &c., and is unable, at times, to bear a bright light, &c. Here there seems to be more of a nervous irritation than a congestion, and hence the treatment becomes difficult, as a nervous temperament, with local congestion or irritation, must be combated against at the same moment.

TRANSACTIONS OF THE PATHOLOGICAL SOCIETY OF PHILADELPHIA.

December 1st, 1839.

The President, Dr. GERHARD, in the Chair.

Dr. STEWARDSON presented a specimen of *Diseased Heart and Liver*, and read the following account of the case:

Case of Hypertrophy and Dilatation of the Heart, with Disease of the Liver.

The subject of the following case was a private patient of Dr. Caspar Morris, to whom I am indebted, with slight exceptions, for the following account of the symptoms, &c., which I give nearly in his own words.

John C—, aged 76 years, has been in the habit of consulting me for some five or six years on account of some dyspeptic symptoms,—his chief suffering being from acidity of stomach, for the relief of which I have been accustomed to recommend attention to his diet, and the use of soda, with occasional recourse to blue mass, rhubarb, and soda. He followed the business of a labourer in a stone yard, chiefly engaged in sawing marble. In the autumn of 1838 he had a smart attack of rheumatic fever, with pain, and swelling of the joints and muscles, especially of the arms. In the course of the attack there was

considerable oppression in breathing, which was relieved, together with the general symptoms, by *free* depletion and purging, first with colchicum, and then with powdered guaiacum. He resumed his occupation in November, and continued it throughout the winter and summer, interrupted only by an attack of what I supposed at the time to be pleurisy, affecting the lower lobe of the right lung, which occurred about the month of May or June, accompanied by pain in right side, along margin of false ribs, slight cough, full pulse, hot skin, &c., which was treated by very abundant depletion, both general and local, and blistering over the seat of pain. From this attack he never entirely recovered, though he was able to resume his labour, and continue it until the month of August. In this month I was sent for suddenly early on a Monday morning, and found him suffering from intense pain under the right clavicle, about the middle of the bone, with laboured respiration, and a full pulse. He stated, that the preceding day, as he came home from church, he had suddenly been seized with this pain and difficulty of breathing, to such a degree, that it was only by great exertion he had been able to walk home, stopping repeatedly on the way. The sounds of respiration, I remember, were perfect, and there was no marked flatness on percussion on any part of the thorax. The action of the heart was laboured, but I cannot recall any recollection of the nature of the sound, or the force of the impulse. Bleeding, cupping, and blistering, were resorted to without any thing beyond temporary relief. There was diminution of the secretion of urine, and it was generally very high coloured. In September I examined his chest attentively: the respiratory sounds were very distinct in the left lung, and the resonance greater than in the right, which appeared, however, in a normal condition. There was, then, so far as my memory serves me, no unnatural sound in the action of the heart, but a marked want of strength in the impulse. There was an inability to lie with the head low; hard and dry cough. The treatment consisted in frequent bleeding, which always relieved him for the time, and diuretics. The skin was pale, and the countenance always anxious, though his mind was cheerful. The relief afforded by bleeding gradually diminished, and the strength failed; under these circumstances I suspended treatment, recommending mild diet and quiet, as the only means of prolonging his life and affording him ease. He was, in fact, compelled to quiet, from the great difficulty of breathing produced by the attempt at exertion. In the month of October Dr. Gerhard saw him with me, and examined his symptoms, which, in his opinion, designated disease of the liver, with some slight affection of the heart. The difficulty of breathing he was disposed to attribute to emphysema. Early in November the symptoms were all aggravated, accompanied by effusion into the abdomen, and swelling of the legs and thighs, with coldness of the hands and lividity of the surface. Dr. Pen-nock now saw him, and made an examination of

the chest. The left side was rather larger than the right; there was dulness on percussion over the lower half of the right side; at left, the præcordial dulness was more extended than natural, except towards the upper part of the chest, where the percussion was very resonant for about three inches under clavicle; there was no perceptible impulse of the heart; both sounds could be heard distinctly and naturally over the region of the pulmonary artery, whilst along the line of the sternum, at its upper part, as well as at the epigastrium, there was a distinct and prolonged rasping accompanying the first sound; elsewhere over the præcordial region, this roughened sound was heard faintly, if at all; there was great action of the veins of the neck, especially on the right side. The patient was not naturally subject to short breath; and before his recent attack, could run as well as any one. No hæmoptysis; no expectoration since attack in August.

On the morning of November 19th, between twenty-four and forty-eight hours after death, I made the examination in company with Dr. Morris.

Abdomen.—Moderate effusion, say from one to two pints of yellow serum in cavity; general aspect of peritoneal covering healthy.

Liver smaller than natural; left lobe does not extend more than two or three inches to left of suspensory ligament; coats thickened and opaque, and divisible in layers for several inches in extent over upper surface of great lobe, and perhaps elsewhere, as the whole liver was not removed from the body. Externally, also, it is slightly rough to the touch in places, and has a mottled aspect. Proper coat easily separated from the substance; being cut into, the surface every where presents a spotted appearance,—these spots being from half a line to a line in diameter, of a more or less bright yellow, circular, with a central point, and surrounded either in part or entirely by a reddish brown substance. These yellow spots evidently answer to the substance of the acini.

The *gall bladder* contains a considerable quantity of thick, tenacious, very dark coloured bile, having a deep orange tint when spread out in a thin layer. No obstruction found in hepatic duct, or ductus communis.

Stomach of moderate size, containing about six ounces of a thin, dirty white fluid. Mucous membrane generally pale, thinned and softened in the great cul de sac.

The mucous membrane of the small and large intestines was not examined throughout; but in places where cut into nothing remarkable was observed, except that in large intestine it was covered with a good deal of glairy and tenacious mucus.

Spleen and kidneys natural.

Pancreas also, except that it seems to be more dense than natural.

Chest.—Upon opening the chest, the upper lobe of the left lung is found to extend to the median line, and almost overlap that of the opposite side, and extending downwards along same line

for about three inches below the end of the clavicle; it hardly collapses at all, being applied very nearly to the walls of the chest anteriorly. Left lung collapses moderately; about a quart of bloody serum in each pleural cavity, mixed on the right side, at least, with some flocculi of lymph; no adhesion any where.

Right lung.—Air vesicles of upper lobe dilated principally at the anterior part, where the border is much thickened; tissue otherwise healthy, supple, and crepitating; lower lobe much congested, of a uniform deep colour.

Right lung, upper lobe, healthy, except some slight dilatations of the cells. Upon cutting into the lower lobe, a number of spots, of a deep black colour, like coagulated blood, were observed; they varied in size, being from half an inch to an inch and a half in diameter, more solid and firm than the surrounding tissue, distinctly circumscribed, presenting no traces of organization, but easily broken down by the scalpel, when some fibres of the natural tissue of the lung could be seen stretching across them; tissue around presented nothing remarkable; no tubercles observed any where.

Pericardium contains a small spoonful of serum; internal surface smooth; no adhesions.

Heart much enlarged, fully twice the size of the fist of the subject; walls firm; length from apex to base along septum four inches; breadth across base five inches; large black coagula in both ventricles; external membrane of heart smooth, presenting several whitish, and more or less opaque patches, accompanied with thickening; unusual quantity of fatty matter over right ventricle, the cavity of which is nearly twice its natural size; walls one and three-quarter lines near base, and one and a quarter near the point; internal membrane smooth, without opacity; auriculo-ventricular orifice four inches eight lines; mitral valve natural; *right auricle* much enlarged; columnæ carneæ proportionally developed; lining membrane presenting nothing remarkable.

Pulmonary Artery.—Circumference at orifice three inches eight lines; valves supple, translucent and free, of a rose tint; lining membrane of artery smooth, and also of a rose tint with here and there a few minute whitish specks.

Left Ventricle.—Walls six lines near base, and four near the point; capacity doubled; internal membrane slightly opaque over a space two inches in diameter immediately bordering upon the aortic valves, which are also thickened and opaque, but preserve their suppleness in a great measure.

Aorta.—Circumference at orifice three and a half inches; immediately above valves and nearly on a line with their upper margin, is a ridge of bony matter extending nearly two-thirds round the circumference of the artery; this bony ridge is only a few lines broad, and in one part is elevated about two lines above the surrounding surface, its margin being very irregular and broken; elsewhere it is less elevated, and its surface more or less smooth; in its neighbourhood are a few small patches of bony matter, as well as

about the origin of the vessels at the arch. Internal surface of aorta elsewhere smooth; circumference an inch above orifice, three and three-quarter inches. Left auricle enlarged; internal membrane opaque, white; circumference of auriculo-ventricular orifice, three inches seven lines; mitral valve thickened, but still pretty supple, except along adherent border near aortic orifice, where there are several deposits of matter apparently cartilaginous.

Remarks.—It is impossible in the above case, to trace with certainty the origin of the disease of the heart, to the attack of acute rheumatism which occurred about a year before the patient's death, since, previous to that period, a sufficiently accurate examination was not made to determine positively whether the organ was or was not the seat of organic disease. If any general symptoms of such disease existed, however, they were slight, and during the attack of rheumatism, the patient suffered under great difficulty of breathing, together, probably with other symptoms not contained in the notes, and referrible to the chest,—as Dr. Morris supposed the patient to be labouring at the time under cardiac inflammation. The existence of this inflammation is farther confirmed by the evidences found after death, viz. the partial thickening of the lining membrane of the left ventricle, &c. If this view of the case be correct, it adds another to the many which have been adduced within a few years, illustrative of the connection, on the one hand between cardiac inflammation, and articular rheumatism as its cause, and on the other, between the same inflammation and certain organic changes of the heart, as hypertrophy, &c., as its effect.

The connection between the physical signs and the condition of the organ, is particularly worthy of attention. The prolonged rasping sound heard along the line of the sternum, especially at its upper part, was evidently occasioned by the irregular ridge of bony matter stretching nearly around the artery on a level with the upper margin of its valves. On the contrary, both sounds were heard perfectly natural, farther to the left over the region of the pulmonary valves, which were found perfectly healthy. The absence of impulse was probably owing to the great enlargement, without *absolute* thickening of the walls of the heart. In connection with the chronic alteration of the liver, it will be recollected that the patient laboured about five months before his death under an acute attack of disease, characterized by pain along the margin of the false ribs of the right side, slight cough and fever, and which I think we are justified in concluding, was probably hepatitis, as no adhesions of the pleura were found after death. The alteration of the liver in the present instance was essentially the same with that presented by me at the last meeting, and also with that found in the case of Margaret Eretel, who was under my charge at the Pennsylvania Hospital till within a few weeks of her death, and reported by Dr. Stillé. Each of these patients had laboured under symptoms

of acute inflammation in the region of the liver; and in the case of Margaret Eretel, especially, I think that the chronic alteration of the organ was evidently referrible to the previous acute attack as its immediate cause, followed as it was so soon by ascites unaccompanied by general dropsy. The most that could be said of the influence of disease of the heart, even supposing that it existed in this instance, which is doubtful, previous to the attack of hepatitis, would be that it operated as a predisposing cause to the latter, to which we would still be obliged to recur as the direct and immediate cause of the chronic alteration of the liver. In other words, we must admit that this alteration was probably the result of inflammation. That organic disease of the heart is productive of congestion of the liver is certain, but the lesion before us is not mere congestion, but a chronic change of structure, characterized by hardness and paleness, or yellowness of the acini. However, I am not disposed to deny, even here, the influence of disease of the heart as a predisposing cause, a supposition indeed rendered highly probable by the frequent simultaneous occurrence of the two lesions. But admitting all this, and even granting that the lesion of the liver is in some cases the result of that of the heart without the intervention of any other cause, the opinion above expressed in reference to its nature, would not in the least degree be invalidated. We should still be justified in regarding it as a chronic inflammation, mostly traceable to an acute attack, though, sometimes the gradual result of long continued congestion. This subject is of practical importance, because, if we look upon the disease of the liver as mostly independent to a certain extent, and in some cases entirely of disease of the heart, we should feel ourselves called upon to make use of more active measures for its removal, than if we regarded it as a mere appendage of that of the heart.

DR. THOMAS F. BETTON presented a specimen of *Aneurism of the Aorta*, in which the Aneurismal Tumor had caused the absorption of the ribs and presented externally.

CLINICAL LECTURE.

PHILADELPHIA HOSPITAL.

Saturday, December 7, 1830.

LECTURE ON DELIRIUM TREMENS—GANGRENE OF THE LUNGS—BRONCHITIS—PULMONARY PHTHISIS.

By W. W. GERHARD, M.D.

No. 4—Winter Course.

I SHALL, to-day, continue the subject of the last lecture, viz. phthisis pulmonalis; but, before proceeding to its consideration, I wish to show you a case of *delirium tremens*, or *mania-à-potu*. This is at most times an affection of frequent occurrence; but, for some months, whether from the progressive improvement in the habits of our people, or from other causes, it has become com-

paratively rare. I submit this patient to your inspection, merely as presenting a good example of the symptoms of *delirium tremens*; reserving the consideration of its pathology and treatment for some future occasion, when I shall detail those changes in the ordinary treatment of the disease which have been made in the hospital within the last few years.

The patient (who has had two attacks of *mania-â-potu*) was admitted not more than half an hour ago, and has the symptoms of the disease strongly marked. There are tremours over the whole body, and a restless expression of the features. These are the first evident symptoms in nearly every case. But as this case has advanced to the second stage, we have other symptoms, particularly a peculiar disorder of the intellect. The patient offers us an instance of this mental derangement; he is constantly harassed with the fear of being killed by some sudden and violent means, and begs that we may give him time to repent, and not destroy him at once. The hallucination may be of various kinds; but *fear* is one of its most common characteristics. The pupils of both eyes are contracted; the eyes constantly moving in every direction, showing that the muscles of this organ are in the same state of tremulous agitation with those of the rest of the body. The patient is sweating profusely; a circumstance very commonly attending this affection, but not invariably. He has not slept for several nights.

This attack of *mania-â-potu* was the consequence of a fit of drunkenness, which has been almost constant for the last six weeks. Before his admission into the hospital, the treatment consisted in the use of large doses of opium, and emetics. As he seems to be considerably exhausted, I shall order a small quantity of brandy for him, and afterwards put him on the use of Hoffman's anodyne, assafœtida, or some similar antispasmodic. Opium we now very rarely employ; and when we do, we give it in small doses.

I now come to the proper subject of the lecture, and shall present several cases of *phthisis pulmonalis*, and of diseases complicating and simulating it, with a view to the further illustration of its history and diagnosis.

Case 1st.—You will recollect that at the last lecture I spoke of three modes in which phthisis commences: first, slowly and gradually; secondly, preceded by inflammation; thirdly, commencing with a sudden attack of hæmoptysis. This case is an instance of the third variety of the disease—the *hæmorrhagic*. The patient entered last Saturday; he is a weaver by trade. This employment is a frequent predisposing cause of phthisis, by the circumstances in which the weavers are placed. They work in close rooms, much in the same way as shoemakers and printers, and fatigue excessively the thorax. There are other circumstances which aid in producing this predisposition in weavers; such as long confinement in one position, the dampness

of the cellars in which they generally work, and the breathing of an atmosphere loaded with irritating effluvia, which arise from the woollen and cotton goods. The patient had been in good health previously to the present attack; had never had a severe cough for any length of time, and had been temperate in his habits. His parents are still alive and healthy, so that the predisposition is probably not a hereditary one; though instances are occasionally met with in which consumption passes by one generation, and is transmitted from grandfather to grandson, without any indications of its presence at the intermediate point. The account given by the patient of the manner in which he was attacked, is this:—In February last, while engaged at work, he was suddenly seized with spitting of blood; in the course of a fortnight he discharged in this way a very large quantity of blood; he thinks it amounted to six quarts,—but this estimate is, no doubt, much exaggerated. At last he coughed up a large coagulum of blood, by which he was nearly suffocated. From this time the hæmoptysis ceased, but the cough has continued without intermission; the sputa are whitish and mucopurulent. About five months since, he began to be weak and emaciated, and has become more and more so ever since. Chills also commenced with the cough, and have constantly accompanied it up to the present time. This is, therefore, another of those cases of phthisis, which simulate intermittent or remittent fever at their commencement, and of which I have already spoken in the two preceding lectures. The *tubercular fever*, causing this resemblance, occurs in the earlier stages of phthisis, and is truly an irritative disease. Sometimes it assumes the remittent type. I have known two cases of this sort amongst my own acquaintances, which were mistaken for remittent fever, and treated as such; but, after some time, the true nature of the affection was explained, by the clear development of the local signs of phthisis. In the present case there would have been little difficulty in the diagnosis, for the hæmorrhage would have made the character of the fever clear. But, in the majority of cases where hæmoptysis does not precede the tuberculous disease, you will be often aided greatly in your diagnosis by the characters of the fever.

The patient has also suffered from profuse night sweats, and here we have a circumstance which distinguishes this fever from hectic. In the latter, the sweating is not so profuse as in the former; but the chills, on the contrary, are more severe. The patient's appetite has been bad for four or five months; he has had several attacks of diarrhœa, continuing two or three days at a time. Diarrhœa is a common attendant of phthisis pulmonalis, and generally arises from the deposit of tuberculous matter in the small intestines simultaneously with the same process in the lungs; but the frequency and duration of its attacks vary greatly in different cases. You have remarked that the patient was seized with hæmoptysis while at work; it is in this way that

it often begins,—suddenly, and while the chest is exposed to some strain.

Hæmorrhage from the lungs, occurring in this sudden manner, is, in most cases, a sure sign of phthisis pulmonalis. It may sometimes arise from other causes, as disease of the heart, congestion of the lungs, or a mechanical cause, such as a strain; but in five cases out of six, in men at least, it is followed by the local signs of tubercular disease. In women, however, it is not so valuable as a diagnostic sign; for in them it may follow suppression of the menses, and may, in fact, become a vicarious discharge. Though hæmoptysis may arise, as I have said, from a sudden muscular effort, when there are no tubercles in the lungs,—yet, in the majority of such instances, they either exist already, or there is a tendency to their formation; for whenever such a tendency exists, the bronchial mucous membrane will bleed from very slight causes. I recollect an instance in which the hæmoptysis was caused by jumping over a wall about five feet in height, and was followed by all the signs of phthisis; and another in which it occurred from lifting a gate which had fallen. The tubercular diathesis, therefore, predisposes to hæmorrhage from the lungs. It is true, that not a few cases of hæmoptysis, abort, as it were, before the tubercles are secreted to any great amount; but when we find that the majority of patients in whom this symptom occurs, are afterwards affected with confirmed phthisis, it is perfectly consistent with the facts to believe that the hæmorrhage coincides with a condition of lungs which favours the tuberculous secretion, and which had in many cases given rise to a limited deposit of tubercle before the discharge of blood took place.

Of the tubercular fever, which is an attendant of the disease in the present case, I have spoken more fully in the preceding lectures. The other general symptoms present nothing peculiar. The emaciation, you perceive, is considerable, and is accompanied by that dirty, earthy hue of the skin, (more especially of the face,) which you have seen in several other patients.

The local signs are—1, cough; 2, expectoration: this at first consisted of mucus, afterwards becoming muco-purulent, with portions of broken down tubercles; 3, dulness on percussion under one of the clavicles, with mucous rhonchi, and a commencing cavernous respiration. These last signs indicate the stage of the disease; they show that there is already some softening of the tubercular matter. This fact is also proved by the character of the sputa.

Case 2d.—This patient has been a labourer on the canal. Before the present illness he has never had a cough, or any other sign of pulmonary disease. He has been sick for two years: the attack was gradual, and was produced by taking cold. Since that time there has been constant cough and expectoration; the matter of the sputa is at this time muco-purulent, and somewhat nummular, and begins to be characteristic of the disease. Emaciation has been apparent

for eight months: before this attack, the patient was a stout man. The skin is dry, pale, and dusky. There has been one attack of diarrhœa. There has also been fever, with profuse night sweats, but no chills: it is therefore a modified form of hectic. At present there is not much fever—pulse 94. The expectoration consists of round masses floating in a liquid, with small pieces of tubercular matter: at first it was mucous, then muco-purulent. The sputa takes its shape from the cavities in which it is found. We shall presently see that when these cavities are very large, the *nummular* character is no longer present. There has been no hæmoptysis until two nights since, when about a spoonful of blood was discharged. Such small quantities are not important; they may arise from irritation of the bronchial membrane; it is only when hæmoptysis is considerable, that it becomes a sign of importance, and also pathognomonic of phthisis.

Case 3d.—This patient was brought before you at the last lecture, as an example of tuberculous disease, coinciding with inflammation of the serous membranes. Since that time, the breathing has continued much oppressed; tongue dry and red; pulse, 95 to 104; bowels constipated. The vesicular murmur has become more distinct on both sides of the chest. There has been an increasing pain in the præcordial regions, with a *bruit de soufflet* of the heart; respiration frequent and high. Yesterday, for the first time; I discovered a grating or creaking sound of the heart, indicative of pericarditis; the *creaking* being produced by lymph into the pericardium. The two surfaces of this membrane rub against each other, chiefly at the beginning of the diastole of the heart, and a grating sound is produced by the spiral movement of the heart on its axis, during the dilatation of the ventricles. The patient, you will recollect, was first attacked by pleurisy; since then, pericarditis has supervened, with more or less endocarditis. This case, is therefore, a good illustration of a circumstance to which I called your attention when I first brought it before you; the connection between phthisis and inflammation of serous membranes. This patient has inflammation of all the serous membranes of the chest, occurring in succession. The pleurisy has declined as the pericarditis has supervened. Besides the signs already mentioned, the existence of pericarditis, attended with effusion, is indicated by feebleness of the impulse of the heart, flatness on percussion, (extending over a larger space than that occupied by the natural dulness of the heart,) and pain on pressure or percussion. The latter symptom, however, is not always present in pericarditis; in any of the serous membranes, in fact, inflammation may occur without any of the ordinary signs. But in this patient the flatness extends to at least double the usual spaces, and there is very decided pain at the region of the heart, which is increased by slight pressure, but is always more or less felt. The dyspnœa in this case is dependant partly on the pleurisy, partly on the pericarditis. The

pulse is not invariably altered in inflammation of the heart, or its membranes; it is principally affected in endocarditis, which gives rise to more or less obstruction of the valves. In the present case, there is excitement of the pulse, and slight irregularity.

I shall now show you some cases of gangrene of the lungs, and bronchitis, the symptoms of which more or less resemble those of phthisis, and the diagnosis becomes, therefore, frequently difficult.

Gangrene of the lungs is by no means a frequent disease, it is oftener met with in hospitals than in private practice. It resembles phthisis, inasmuch as it produces softening of the pulmonary tissue, and, consequently the formation of cavities. It differs from it in the fetor of the breath, and expectoration. The local signs, at the commencement of the disease, are imperfect.

The causes of gangrene of the lungs are cold, an epidemic tendency of the atmosphere, intemperance, and depressing circumstances generally. In most cases, it arises from direct exposure, but sometimes it comes on gradually, and appears to be part of a general disease; that is, it depends on a vitiation of the fluids, in the same way with dry gangrene, of which I have shown you an example.

Case.—The patient is a boatman forty years of age. He had enjoyed good health till about two months before his entrance into the hospital. At that time, being engaged at his occupation on the Schuylkill, he fell into the river, and was with difficulty saved from drowning. He felt extremely cold, and could not speak for twenty minutes, but no sign of active disease followed for two weeks, other than feebleness and chilliness. Then a cough began, accompanied by pain in the lower part of the right axillary region; the sputa have never contained blood, and have been fetid from the beginning; appetite has been bad throughout; the patient continued to work regularly until November 30th; but since that time, he has been unable to perform any kind of labour. The treatment, previously to his entrance into the hospital, consisted of venesection, and the application of a blister to the right side of the chest.

The patient was admitted December 6th. At that time the symptoms were as follows: slight emaciation; a dusky hue of the skin; slight flushing of the face; dilatation of the nostrils; skin warm; pulse 104, thrilling, moderately resisting; respiration 22, high and laboured; expectoration thick and homogeneous, of a dirty, grayish colour, and very fetid. On the right side, anteriorly, respiration vesicular throughout, with traces of the mucous râle, hurried and harsh at the summit of the lung. On the left side, vesicular, with traces of both mucous and sonorous rhonchi. *Posteriorly*, on the right side, vesicular in upper lobe, hurried, and very feeble; in lower lobe, scarcely any vesicular sound; at the upper part, deep-seated, cavernous respiration, and imperfect pectoriloquy. Percussion gives a flat sound in the lower two-thirds of right side poste-

riorly; clear anteriorly. The signs, therefore, indicated a cavity in the lower lobe of the right lung, with an engorged condition of the surrounding tissue, accompanied by pleurisy. The treatment has consisted in the use of chloride of soda, given in doses of twenty drops four times a day, with nourishing diet. Quinine, porter, and brandy are often necessary; the indications being to correct the fetor of the breath and expectoration, and support the system, while nature effects the elimination of the gangrenous tissue. A number of palliatives as opiates at night, will doubtless occur to you; but you should be sparing of depletory measures; they are rarely necessary, except when there is severe pleuritis near the gangrene; and these should be limited to local bleeding, or still better, to blisters.

Gangrene of the lungs is to be distinguished from phthisis by these circumstances: it usually begins suddenly, and runs its course rapidly; the skin presents a more decided dusky hue in gangrene, than in phthisis; and the breath and expectoration are always fetid from the commencement of gangrene. The prognosis of the two diseases is also very different. In gangrene, it is not necessarily unfavourable; from one-third to one-half of the cases recover; in phthisis, on the contrary, our prognosis is almost always unfavourable after a cavity is formed. When gangrene tends to a favourable termination, recovery generally takes place in a few weeks. Any improvement in the symptoms of phthisis, on the contrary, is very gradually effected.

There are two kinds of expectoration met with in gangrene of the lungs. The most common is blackish, and resembles an inky sediment. The other kind, of which we have an example in the present case, is a grayish, frothy fluid, having some resemblance to yeast, with a fetid odour, which you may perceive is like that of putrid oysters. This, though the least common, is the most favourable variety of sputa. It is generally discharged in very large quantities—amounting, sometimes, to a pint or a quart daily.

I have frequently described, in my lectures, the progress of cure in gangrene. When the sphacelated portion is thrown off, a cavity is formed, lined with the usual pus, secreting false membrane, which gradually assumes the character of a mucous membrane. We shall watch the progress of this case, and keep you informed of the result.

The next case is one of bronchitis. The patient is a labourer, aged 35 years. He entered the hospital on the 2d instant, having been ill for two weeks. He was seized with cough and pain along the sternum; in the course of a week, he began to expectorate a muco-purulent manner, containing no blood; during the most of the time he has been confined to bed. These signs indicate an acute disease, which might be mistaken for the acute form of phthisis. It is distinguished from it, by the absence of the irritable, jerking pulse of phthisis, described in our last lecture, and also, by the absence of the local signs of tubercular deposition. Thus there is no flatness or percussion under

the clavicles; and the mucous rhonchus is heard in the sound of respiration throughout the lower lobes of both lungs. But though bronchitis is thus distinguished from phthisis in the commencement, both by the general and local signs, yet it is very apt to terminate in the latter disease, and we ought always to anticipate such a result when it is prolonged, and occurs in young persons.

The next case is a complication of phthisis and bronchitis. The patient is a boatman, 38 years of age, of intemperate habits. He has been sick for three months, and unable to work during the whole of this time; his illness was caused by falling into the canal: the next day he was seized with shivering and cough, unaccompanied by pain: the expectoration consisted of mucus mixed with pus, but no blood. On the 4th instant he entered the hospital, and the symptoms were as follows: There was abundant mucous rhonchus throughout both lungs, passing in certain portions into the sub-crepitant, while at the summit of the left lung, the percussion is dull and the respiration extremely bronchial. There is a quick irritation, some emaciation, and a dry husky skin. The sputa, although not nummular, are more purulent than is usual in cases of bronchitis. The dyspnoea is much greater than in most cases of phthisis or uncomplicated bronchitis.

This case began in the form of bronchitis: phthisis was developed subsequently, and the two diseases are now co-existent. This state of things is of frequent occurrence, particularly at advanced periods of life. At an earlier age, when phthisis is developed in the course of a bronchitis, it is apt to commence more suddenly, and run its course more rapidly than in the present instance. The patient, you perceive, is but slightly emaciated, and will probably get comparatively well: that is, the disease may continue for years, with slight cough, &c., but may not shorten the patient's life; the cavity in the lung remaining, but lined with a healthy membrane. I have known several cases of such comparative recovery, from this form of disease; the chance of long life are not afterwards apparently affected by it.

You will now understand that phthisis pulmonalis may commence in several different forms:

1. It may commence *slowly and gradually*. This is the most common mode of origin, and is generally met with in cases where the tubercular diathesis is hereditary. The first symptoms of the disease are slight cough and expectoration; the local physical signs are not present until a more advanced stage.

2. Phthisis may arise from *inflammation*. This variety is most common in robust persons, and is likewise, in most instances, dependant upon a hereditary predisposition, which imparts to inflammation a tendency to terminate in the formation of tubercles. The most common seat of the inflammation preceding phthisis, is some one or other of the serous membranes; and the tubercles may at first be deposited either in the serous

membranes alone, in the lungs, or in both. The mucous membrane of the bronchial tubes may likewise be the seat of the inflammation; but phthisis beginning in the latter way, is more commonly met with in old persons, than that which begins by the serous membranes.

Inflammation performs two distinct parts; in the one it is properly the cause of the tuberculous deposition which may occur some time after the inflammation, or take place during the progress. In the second, the secretion of tubercle is attended with an acute inflammatory action in the organs, but the cause of the tubercles cannot be said to be the inflammation which attends their secretion.

3. The *hæmorrhagic* variety. In this, hæmoptysis, whether preceded by a violent effort or not, constitutes the first symptom.

But these different forms of phthisis, though differing so much in their origin, after a certain period present the same character; they are all attended by emaciation, cough, expectoration consisting of pus and softened tubercular matter, hectic fever, and all the other signs which mark the more advanced stage of the disease. The progress of phthisis is most rapid when produced by inflammation of the serous membranes, especially in young subjects; it is less so when preceded by bronchial inflammation. The hæmorrhagic variety is likewise rapid in its course; the slowest of all is that which is constitutional and hereditary. All of these forms are liable to be confounded with other diseases; thus, the first may be mistaken for simple serous inflammation; the second for bronchitis; the third for hæmorrhage arising from other causes.

We might multiply the varieties of phthisis almost to an indefinite number, but the preceding are the most important, and may be considered as the landmarks in the study of the disease; under one or other of these classes, all other forms may be included. There are likewise other tubercular affections, not commencing in the lungs, and only implicating them secondarily; but phthisis pulmonalis is by far the most frequent form in which the tubercular diathesis develops itself.

I will conclude the lecture by showing you some very interesting pathological specimens, which illustrate this subject. They are the lungs and intestines of a subject who lately died of phthisis in its most aggravated form. I referred to the case at the last lecture; the patient, a young man, being then so feeble as to render it improper to bring him before you. The physical signs, during life, indicated the existence of a large cavity in the left lung: many of you have heard the cavernous, amphoric, and gurgling sounds of respiration which were extremely distinct. In the course of his illness, the patient also had tubercular diarrhoea.

You will at once recognise the existence of a cavity in the upper lobe of the left lung, by the falling in of its parietes as I hold it up. This whole lobe, indeed, is converted into a mere sac,

nothing of the normal structure remaining, except the pleura, and a thin layer of the tissue of the lungs on its inner face. The large size of this cavity accounts for the great distinctness of the amphoric respiration in the last stages of the disease. The cavity is lined by a false membrane, and contains a considerable quantity of muco-purulent fluid mixed with particles of tubercular matter. The muco-purulent matter is a secretion from the false membrane; the contents of the cavity differ from the expectoration only, in not containing saliva, which is mixed with them afterwards. The sputa in this case were not of the nummular form of which I showed you a specimen just now, for some days before the death of the patient, because the cavity was too large for their formation. You will notice several bands or bridges passing from one side of the cavity to the other: these consist of blood-vessels, which have resisted the ulceration longer than the surrounding tissue: sometimes, however, they are opened by this process, and hæmorrhage is the result, which is often instantly fatal. The rest of the left lung is infiltrated with grayish tubercular matter to such an extent, that scarcely a trace of the healthy tissue can be found. The tubercles are partly softened, and small cavities are seen here and there: these gave rise to the gurgling sound of respiration.

In the right lung, the lower lobe is in a comparatively healthy condition. The tissue of the upper lobe is engorged with blood: tubercular masses are scattered through every part of it; they are of a yellowish-white colour, and no signs of softening are yet perceptible.

In order that you may see the connection between the lesions and their physical signs, I will read some extracts from the notes of the case. Nov. 4th.—Respiration throughout right side, expansive and full, but a little harsh. Left side, cavernous respiration with distinct pectoriloquy, most evident near the sternum, about the second rib. Nov. 24th.—Anteriorly, very loose gurgling, with cavernous respiration throughout the whole of the left side. Puerile respiration in the right side. Posteriorly, on the left side, very loose mucous rhonchus, with gurgling throughout; but there is a little vesicular murmur near the scapula. Respiration rude in upper third of right lung. 27th.—Left side, anteriorly, respiration amphoric above; loose gurgling in the lower third. Posteriorly (same side,) gurgling and cavernous respiration in the lower half, and at the summit; in the intermediate space, respiration distinctly cavernous, but mixed with a vesicular murmur.

I will now examine the intestinal canal. The mesenteric glands are enlarged, of an irregularly rounded shape, and are entirely converted into tubercular matter. This condition of things, when the tuberculous deposit is confined to the mesenteric glands and adjacent parts, constitutes the disease called *tabes mesenterica*. In most cases of this sort, there are likewise tubercles, either in the peritoneum, or the follicles of the intestine: here they are found in both situations.

Large intestine.—In the colon, there are some ulcers in the follicles, with slight inflammation of the mucous coat. Near the rectum are innumerable ulcers of small size, which appear like so many distinct points, because they have commenced in the separate follicles.

Small intestine.—Near the ileo-cæcal valve are numerous ulcers, evidently commencing in the glands of Peyer. Some of these glands still remain, but much enlarged, and containing yellowish tubercular matter, which is still of a firm consistence. Here you may distinctly trace the changes which take place in the follicles, from the first separation of the tubercular matter to its complete softening, and final discharge by ulceration. The other viscera were not examined, on account of the short time which remained for us to make the examination previously to the lecture. There is no doubt, however, that tubercles existed in several other organs, particularly the bronchial glands and the spleen, which are amongst the most frequent seats of these deposits.

FOREIGN SUMMARY.

Removal of an Enormous Fibrous Tumour of the Uterus. By M. SCOUTETTEN.—Madame R., a lady of easy circumstances, at Metz, is forty years of age, strong, and of good constitution; she has had several children, and her labours have always been unattended by any bad effect. In 1834 her catamenia were disturbed; afterwards abundant but easily repressed hæmorrhages supervened, without any evident cause; and they were accompanied with sensibility in the epigastrium, and of derangement in the digestive functions.

Notwithstanding the evident progress of the disease, and the increasing swelling of the abdomen, the patient was but little distressed, when suddenly, in April 1837, she was attacked with a considerable hæmorrhage, which she attributed to fatigue. She went to bed, and a few instants after she felt a shock, followed by pains like those of labour, which increased and succeeded each other rapidly. An accoucheur was called, who discovered by the touch a very long tumour engaged in the neck of the uterus. The patient remained two days in a state of horrible suffering; it was hoped that nature might be able alone to relieve her. The seriousness of the disease and the imminence of the danger suggested a consultation, and I was called in. I found, by an attentive examination, that the tumour was hard, resisting, and smooth on its surface, and had the principal external characters of a fibrous tumour.

The patient was placed on the edge of a bed, and her legs and thighs being separated and fixed, I introduced my fingers in the vagina in the hope that they might be sufficient to draw the tumour out, but I soon found that this was impossible. I then took strong toothed forceps; they tore the

surface of the tumour, but could not move it. I tried to pass a thread round the tumour with a *serre-nœud*, but the ligature slipped, and fell off directly. I then introduced a long and narrow forceps cautiously into the cavity of the uterus, and with them the tumour was seized and slowly drawn out; I found that it was fixed by a large surface to the interior of the uterus, and that that organ was inverted. Was I now to divide the attachment with the bistoury? I should so expose myself to a hæmorrhage that might be fatal. Was it not more prudent to confine myself to the application of a ligature without endeavouring for the present to return the uterus? I knew that I might thus excite inflammation of that organ and peritonitis; but I preferred to expose myself to combat an inflammation rather than a hæmorrhage that might be at once destructive.

I therefore put a strong but fine ligature on the tumour at its attachment; it was drawn tight and the tumour almost immediately became brown, which I attributed to the arrest of the blood in the numerous vessels that traversed it. I surrounded it with a compress covered with cerate, and placed the whole between the thighs of the patient.

During the first day the abdomen was tense; but only slightly painful, the pulse scarcely febrile. I ordered only a friction of oil on the abdomen and the application of a cataplasm. On the next day, the patient suffered a little more, but there was no serious symptom. On the third the weight of the tumour had lengthened the cellular bands which united it to the uterus nearly half an inch, and it was now easy to see that they might without inconvenience be divided with the knife; I did so at once: the tumour was removed, the uterus gently pushed back, and all the bad symptoms disappeared.

Twelve days after, the patient was so far recovered that she could go out and walk; and since that time her health has never been a moment deranged. The tumour weighed 35 ounces; it was ovoid; its great circumference measured 16½ inches, its middle circumference 12 inches and five lines; its tissue was composed of concentric fibres.—*Lond. from Paris Med. Gaz.*

Gangrene resulting from the employment of a Starched Bandage in a case of Fracture of the Patella. By Dr. DEFER, of Metz.—A man, æt. 40, received a transverse fracture of the patella, from a fall. The medical officer who was called in, applied first a bandage, to bring the portions of bone together, and then a starched roller, which extended from the toes to the upper third of the thigh; the limb was then placed on an inclined plane. The patient was occasionally visited; but, as he suffered scarcely any pain, the apparatus was not altered. About six weeks after the accident his attendant, on proceeding to remove the apparatus, found the smell such as to induce the presumption that gangrene had supervened; and Dr. Defer was called in. He found

the odour that exhaled from the limb such as could not for an instant permit a doubt of the existence of gangrene. The toes which the roller had not covered were mummified and completely insensible. On removing the bandage, the gangrene was seen to extend to within seven inches of the knee. The foot was cold and insensible, and the epidermis had begun to separate. The ankle-joint was exposed; the ligaments were destroyed, and the tendons, being no longer restrained, were extended like cords. The bones of the leg were also exposed in their lower third, and the tendons had begun to slough. Amputation was performed, and the patient recovered.

[The practice in this case was shameful; but the error was less in the employment of a particular bandage than in the subsequent inattention to the progress of the injured part. Any other bandage would probably have produced the same effects, when applied immediately after the accident, and suffered to remain for six weeks.]—*Gaz. Med. from Brit. and For. Med. Rev.*

On Congenital Dislocations of the Femur. By M. BOUVIER.—At the meeting of the Academy of Medicine, on the 16th of April, M. Bouvier presented three specimens of this rare malformation. One of them was from a woman, æt. 26, who had died of phthisis. Both femurs were dislocated. On the right side the head of the femur was still attached by a portion of the capsular ligament, which lay between the head and the outer surface of the ilium. The cotyloid cavities were reduced in size, and triangular; and, notwithstanding the wasting of the heads of the femur, the cavities were both too small to admit them.

The second case was one of double dislocation, in a woman, aged 29; but M. B. had received only the left hip-joint, and that, like those of the preceding subject, in an imperfect state. In the place of the cotyloid cavity there was only a slight superficial triangular depression, quite incapable of receiving the head of the femur, though it was much atrophied. The capsule was lengthened, and, as in the preceding case, interposed between the femur and the dorsum of the ilium. It was dilated at its extremities, but contracted, like an isthmus, at the middle, so that the head of the femur could not, during life, have been made to pass through it.

In the third case the left femur only was dislocated. The patient had been a porter, lame from birth, but robust. The head of the femur was higher and more forward than in the other cases. Enveloped above by its capsular ligament, it was placed on a small false articulating surface, on the ilium, to the edge of which the ligament was attached. The muscles attached to the upper part of the femur were all healthy, except the quadratus, which was atrophied, and in part fatty. On trying to draw down the head of the femur, by pulling it parallel to the axis of the body, and at the same time pushing up the ilium in the opposite direction, an insurmountable resistance was found to arise, from the tightness

of the anterior and inner part of the capsule. But when the femur was strongly flexed and at the same time rotated very much outwards, and in this position (as in M. Desprez's mode of reduction) drawn parallel to the axis of its body, the head could easily be placed opposite to the acetabulum, though, from the contracted size and form of that cavity, it could not be placed in it.

[In reference to the important but still problematical question of the reducibility of congenital dislocations of the femur, these cases would show that the chief points to be considered are, the more or less complete obliteration of the cotyloid cavity, the contraction of the capsular ligament between the acetabulum and the part which surrounds the neck of the femur, the extreme resistance which the anterior and internal part of the capsule presents to any efforts at elongation of the limb, the difficulty of moving the thigh during life into the position in which, after death, a kind of reduction may be effected; and, lastly, the difficulty of retaining the limb during extension in the reduction which has been effected by its flexion.]—*Brit. and For. Med. Rev., from Bulletin de l'Acad. Roy. de Méd. Juin 30, 1839.*

Singular Case of a Woman delivered of Five Children.—Giuseppa Califani, of Naples, at the age of fourteen years and three months, was married to a man aged twenty-seven, by whom she had ten children at eight accouchements; at the fifth and sixth producing twins. She lived with her husband ten years, and remained a widow three years after his death; she then took a second husband, whose age was about twenty-nine. After two regular accouchements, upon her third pregnancy she became enormously large; so that, at seven months, she appeared to be at the termination of her natural period. She was taken, however, at seven months, with labour-pains, and brought forth successively, and by natural presentations, five living children, all of whom were baptized. The mother did not suffer any thing extraordinary. Four of these children were females, and one male. The male infant was delivered first, and, after a few minutes, one female; then, after a cessation of fifteen minutes' interval between each, the other three followed. The infants much resembled each other, and were of a regular form, and well grown, and very nearly of the ordinary size of a seven months' foetus; each weighed about three and a half pounds, and measured in length a French foot. The insertion of the umbilical cord was about four lines lower down than ordinarily. The placentas, with their membranes, were four instead of five; and each had its proper umbilical cord, except the fourth, which contained two in one large sac. The foetus, with their membranes, placenta, and umbilical cords, are preserved in the Royal Anatomical Museum of the University of Naples. Vincenzo Licci, of Calimera, in Otranto; Vincenzo Massari, of Molfetta,

Brian; and Dr. Antonio Scacani of Naples, conducted the examination.—*Ib., from Bulletino delle Scienze Mediche. Agosto e Settembre, 1838.*

New Test for the Detection of Pregnancy.—(L'Experience, July 25, 1839.)—M. Nauche found that the urine of pregnant women contains a particular substance, which, when the urine is allowed to stand, separates and forms a pellicle on the surface. M. Eguiser, from an extensive series of observations, has confirmed this fact, and found that the *kisteine*, as this particular substance has been called, is constantly formed on the surface of the urine of women in a state of pregnancy.

The urine must be allowed to stand for from two to six days, when minute opaque bodies are observed to rise from the bottom to the surface of the fluid, where they gradually agglomerate and form a continuous layer over the surface. This layer is so consistent that it may be almost lifted off by raising it by one of its edges. This is the *kisteine*. It is whitish, opalescent, slightly granular, and can be compared to nothing better than to the fatty substance which swims on the surface of soups, after they have been allowed to cool. When examined by the microscope it has the aspect of a gelatinous mass, without determinate form; sometimes cubical shaped crystals are discovered on it, but this appearance is only observed when it has stood for a long time, and are to be regarded as foreign to it. The *kisteine* remains on the surface for several days; the urine then becomes turbid, and small opaque masses become detached from the *kisteine*, and fall to the bottom of the fluid; and the pellicle soon becomes destroyed.

The essential character of the urine of pregnancy, then, is the presence of *kisteine*; and the characters of the pellicle are so peculiar that it is impossible to mistake it for any thing else. A pellicle sometimes forms on the surface of the urine of patients labouring under phthisis, abscess, or catarrh of the bladder, but may be easily distinguished by this circumstance, that it does not form in such a short time as the *kisteine*, and that, in place of disappearing, as this last, in a few days, it increases in thickness, and at last is converted into a mass of mouldiness. There exists, likewise, a very marked difference between its mucous aspect and that of *kisteine*—a difference which it is difficult to describe, but which is easily recognized.

Kisteine appears to exist in the urine from the first month of pregnancy till delivery. M. Rousseau has even recognized it in the urine of a few gravid animals.—*Edinburgh Medical and Surgical Review.*

Clot Bey.—Clot Bey, first physician to Mehemet Ali, has lately been created, by the Pope, Commander of the Order of Gregory the Great.—*Med. Gaz.*